Star FGR006/EX
iPASS IP-FGR006
IDTECK FGR006SR

Fingerprint Identification
Proxy Reader

IDTECK

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1. Important Safety Instructions

When using your Fingerprint Identification Proximity Reader, basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and injury to persons.
In addition, the following should also be followed:

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. If necessary, use mild soap.
4. Do not use this product near water, such as bath-tub, wash bowl, kitchen sink, laundry tub, in a wet basement, or swimming pool.
5. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your installation site, consult your dealer or local power company.
6. Never push objects of any kind into this product or through the cabinet slots as they may touch voltage points or short out parts that could result in fire or electric shock. Never spill liquid of any kind on the product.
7. To reduce the risk of electric shock, do not disassemble this product by yourself, but take it to qualified service whenever service or repair is required. Opening or removing the covers may expose you to dangerous voltages or other risks. Also, incorrect reassembly can cause electric shock when the unit is subsequently used.
8. Unplug this product from the Direct Current (DC) power source and refer to qualified service personnel under these conditions:
   a. When the power supply cord or plug is damaged or frayed.
   b. If liquid has been spilled on the product.
   c. If the product does not operate normally after following the operating instructions in this manual. Adjust only those controls that are covered by the operating instructions in this manual. Improper adjustment of other controls that are not covered by this manual may damage the unit and will often require extensive work by a qualified technician to restore normal operation.
   d. If the product exhibits a distinct change in performance.

2. General

The Star FGR006/EX / iPASS IP-FGR006 / IDTECK FGR006SR is a Biometrics and Proximity Reader which can be compatible with existing proximity readers.
The Star FGR006/EX / iPASS IP-FGR006 / IDTECK FGR006SR can be connected to any existing access control panel and allows access to authorized persons using their fingerprints while denying access of unauthorized persons. The Star FGR006 / iPASS IP-FGR006 / IDTECK FGR006SR has a built-in proximity reader (instead of a built-in proximity reader, the Star FGR006EX has an external reader port) and fingerprint module so that the access is only allowed when the personal ID and fingerprint are authorized. Its modern design gives you an easy installation (just replace existing reader) to a metal door frame (mullion) or to any flat wall surface.

The Star FGR006/EX / iPASS IP-FGR006 / IDTECK FGR006SR ensures you a successful operation where you want biometrics access control. The Star FGR006/EX / iPASS IP-FGR006 / IDTECK FGR006SR has three LED of red, green and lens (upper right) as well as an inside beeper to guarantee you an accurate and reliable access control.

3. Features

- 1:1 Verification and 1:N Identification
- Identification Method: by Auto Touch Sensor (optional): FGR006A/EXA
- 125KHz Proximity and Fingerprint Recognition
- 1,000 / 2,000 / 4,000 Fingerprint Users
- Various Operating Modes
- ID only Function for Persons with Unregisterable Fingerprints
- Network Communication via RS232 / RS422 / RS485 (Max.255ch)
- Upload / Download Fingerprint Templates using PDA or Notebook
  (Optional, RS232C Stereo Jack required)
- Fingerprint Register / Reader Mode using Master Card
- Off-line Add / Delete Function using Master Card
- 26bit Wiegand (default) and ABA Track II (optional) Output Format
- 1ea of External Reader Port (FGR006EX):
  26 / 34bit Wiegand, 4 / 8bit Burst for PIN and ABA Track II
- High Protection from Scratch and ESD (Electro Static Discharge)
- High Quality Optical Sensor
- Tamper Switch
- Options: Supervisory Signal, RS232C Stereo Jack
- Compatible Software: STARWATCH DUAL PRO I / II, STARWATCH iTDC PRO I / II
  FINGERPRINT ENROLLMENT PRO 2006
- Compatible Controller: iCON100, iTDC, Third Party Controller, Standalone Controller

* Comparison Table

FGR006 (FGR006A)	Built-in 125KHz (4”) Proximity Reader
	RF Only / Fingerprint Only* / RF+ Fingerprint
FGR006EX (FGR006EXA)	1ea of External Reader Port
IP-FGR006 (IP-FGR006A)	ASK[EM] Format, Built-in 125KHz (4”) Proximity Reader
	RF Only / Fingerprint Only* / RF+ Fingerprint
FGR006SR (FGR006SRA)	Built-in 13.56MHz (4”) Contactless Smart Card Reader
	Smart Card Only / Fingerprint Only* / Smart + Fingerprint

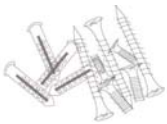
* The products in the parentheses (whose names end with “A”) come with an Auto Touch Sensor for support of Fingerprint-Only Identification. This means that the standard products without an Auto Touch Sensor can’t support the Fingerprint-Only access mode.

4. Identifying Supplied Parts

Please unpack and check the contents of the box.

Main Unit
(1 ea)

RS232 Serial Port
(Optional)



Screws
(4ea)

User's Manual
(1 Copy)

5. Specification

Model			FGR006	FGR006EX
CPU			32bit ARM9 and Dual 8bit Microprocessor	
Memory	Fingerprint Module	Program Memory	128KByte Flash ROM	
		Data Memory	128KByte / 256KByte / 512KByte Flash Memory	
	Controller	Program Memory	128KByte Flash ROM	
		Data Memory	256KByte Flash Memory	
Fingerprint User			1,000 / 2,000 / 4,000 Fingerprint Users	
Fingerprint Template Size			800 Bytes for 2 Fingerprint Templates	
Read Range	Passive Type	FGR006	IDK50 / IMC125: Up to 2 inches (5cm) IDC80 / IDC170: Up to 4 inches (10cm)	Varies depending on the External Reader
		IP-FGR006	IPK50 / IMC125: Up to 2 inches (5cm) IPC80 / IPC170: Up to 4 inches (10cm)	
		FGR006SR	ISK50 / IHC80 / IMC135: Up to 2 inches (5cm) ISC80: Up to 4 inches (10cm)	Varies depending on the External Reader
	Active Type		IDA150 / IDA200 Compatible	
Reading Time (Card)			30ms	
Verification / Identification Time			Less than 1sec. / Less than 2sec.	
Power / Current			DC 12V / Max. 350mA	
External Reader Port		FGR006 / IP-FGR006	N/A	1 port (26bit Wiegand, 4/8bit Burst for PIN, ABA Track II)

	FGR006SR		1 port (34bit Wiegand, 4/8bit Burst for PIN, ABA Track II)
Communication		RS232 / RS422 / RS485 (Max.255ch)	
		TCP/IP (External LAN Converter Required)	
Baud Rate		9,600bps (Recommended) / 4,800bps, 19,200bps and 38,400bps (Selectable)	
Input Port		2 ports (External LED Control, External Buzzer Control)	
Output Port		2 ports (Error-Output , OK-Output (Open Collector Output))	
LED Indicator / Beeper		3 Array LED Indicators (Red and Green) / Piezo Buzzer	
Operating Temperature	Fingerprint Module	-15° to +40°C (+5° to +104°F)	
	RF Reader	-35° to + 65°C (-31° to +149°F)	
Operating Humidity		10% to 90% relative humidity non-condensing	
Color / Material		Pearl Dark Gray and Light Gray / Polycarbonate	
Weight / Dimension (W x H x T)		259.5g (0.57lbs) / 66mm x 129mm x 52mm (2.6” x 5.1” x 2.0”)	
Certification		FCC, CE, MIC	

* Finger Module Specification

Resolution	500dpi
Capture Image Size	356 X 292 pixels
Extraction Image Size	248 X 292 pixels
Sensing Area	12.7 X 14.9mm
Scanner	High Quality Option Sensor
FAR(False Acceptance Ratio)	0.001%
FRR(False Reject Ratio)	0.1%
ESD(Electro Static Discharge)	15KV
Verification Time	Less than 1sec.
Identification	Less than 2sec.

6. Product Overview

6.1. Functions

The FGR006 is a finger reader with a built-in proximity reader and registration terminal.

Registration Mode
In the registration mode, you can register new user cards or delete existing user cards.

Reader Mode
In the reader mode, the FGR006 operates as a reader.

RF Only Mode
: If a card is authorized, the corresponding card number will be transmitted to the controller.

RF + FINGER Mode
: If a fingerprint is authorized, the corresponding card number will be transmitted to the controller.

Master Card
A master card is used to toggle the FGR006 between the reader mode and the registration mode.

Card Number Output Form
If a fingerprint is authorized, the corresponding card number is transmitted to the controller via 26/34bit Wiegand or ABA Track II according to the output type setting.

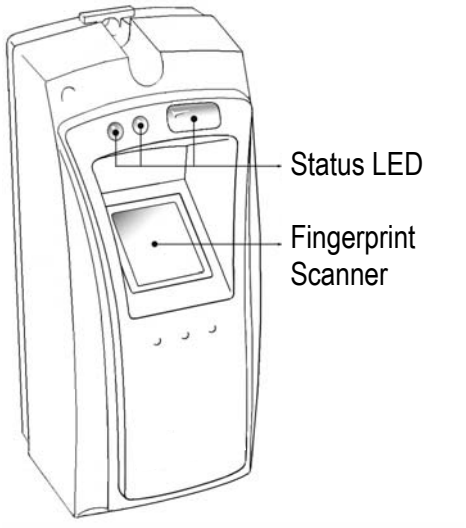
Error Signal Output
If a fingerprint fails to be authorized, the FGR006(FGR006EX) will generate 500ms fingerprint error signals of low active pulse.(Applicable only when your FGR006(FGR006EX) is set to use the 26/34bit Wiegand output) This signal is open collector.

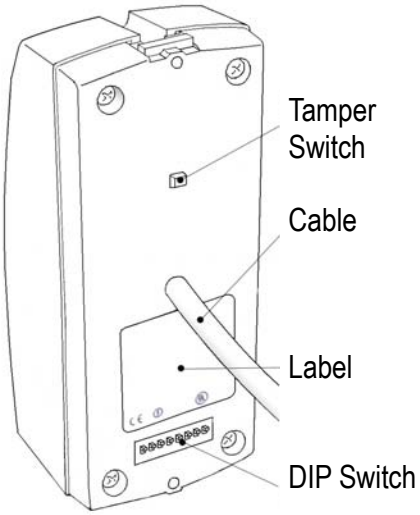
Card Number Input Format
This function is only available when you use the FGR006EX. The FGR006EX receives the card number from the external reader while the FGR006 contains a built-in proximity reader inside. The FGR006EX receives the card input in 8bit Burst or 26bit Wiegand or ABA Track II format.

Dual Finger Mode
Dual Finger Mode is a function that allows a user to register two fingers for one ID so that the user can receive authentication with either of the two registered fingers. This is useful when one of the user's fingers is injured.

6.2 Product Explanation

6.2.1 Panel Description





6.2.2. Color Coded & Wiring Table

SIGNAL	COLOR
Main Power (+12V)	Red
Power Ground (GND)	Black
Wiegand Data 0 Out / ABA Track II Data Out	Green
Wiegand Data 1 Out / ABA Track II Clock Out	White
Error Signal Out / ABA Track II CP Out	Orange
OK Signal Out	Orange with Black stripe
Tamper Switch Out	Purple
Wiegand Data 0 In (EX)	Pink
Wiegand Data 1 In (EX)	Cyan
LED Control In	Blue with White stripe
Buzzer Control In	White with Red stripe
RS422 (TX+)	Gray
RS422 (TX-)	Yellow
RS422 (RX+)	Brown
RS422 (RX-)	Blue
* Please cut out the tail connector before installation.	

For RS485 communication, you should put Gray (TX+) wire and Brown (RX+) wire together as well as Yellow (TX-) wire and Blue (RX-) wire.
We recommend you use the INC300 converter.

7. Installation Tips & Check Point

7.1. Recommended Cable Type and Permissible Length of Cable

DESCRIPTION	CABLE SPECIFICATION	MAXIMUM DISTANCE
Reader (Power and Data) Reader -> ACU	Belden #9512, 22 AWG 4 conductor, shielded	150m
	Belden #9514, 22 AWG 8 conductor, shielded	

* Thicker wires are required if you connect the reader with high current consumption.

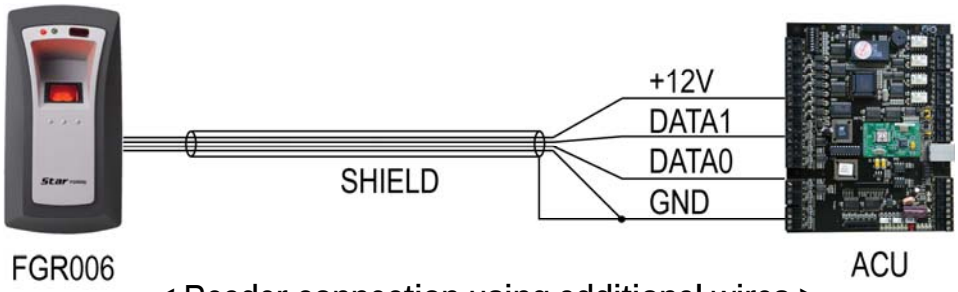
7.2. Reader Connection

If you install the reader in a long distance between the ACU and the reader, you have to remind that there will be a voltage drop between both ends of GND wire. For example, if you connect a reader with 100mA current consumption at 100m distance (assume to using DC resistance of cable of 100Ω/100m) and the reader power is supplied from the ACU, the voltage drop of the GND wire will be 1V. In this case, the Wiegand data signal can not be measured lower than 1V.

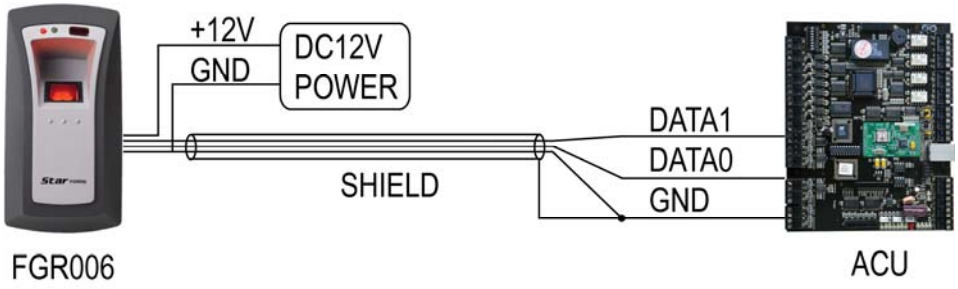
The most of ACU is capturing the signal by the voltage level of data input and 1V is the critical point whether the ACU read the data logic “1” or logic “0” therefore the reader output can not be read correctly from the ACU.

You have to think about how you reduce the voltage drop between both ends of GND wire. There will be two methods to reduce the voltage drop and ACU can read data correctly.

- Reduce the DC resistance of GND wire; Using thick cable or add more wires to GND wire in parallel. If you connect 4 wires in parallel for GND, the DC resistance of GND wire will be reduced to 1/4 of single wire.
- Use separate power for the reader; Disconnect +12V wire from the ACU and connect external power supply to the reader nearby then there will be no current flow through the GND wire and no voltage drop between both ends of GND wire.



< Reader connection using additional wires >



< Reader connection using external power supply >

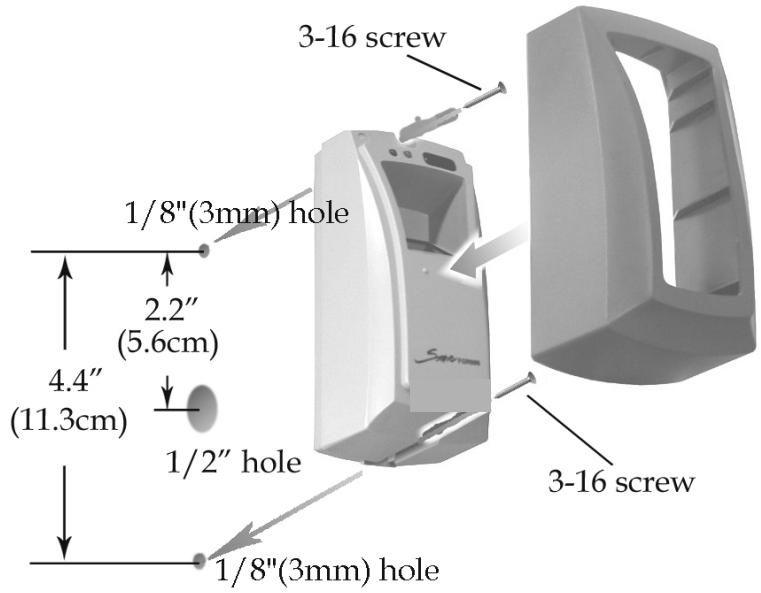
8. Installation of the Product

8.1. Mullion and Wall Mount

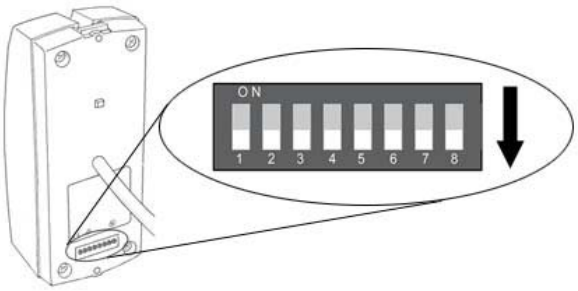
8.1.1 Drill two Ø1/8"(3mm) holes, 4.4"(113mm) apart vertically and drill one Ø1/2" hole for the reader cable 2.2"(56mm) apart from the top hole.

8.1.2 Connect wires between the controller and the FGR006, then put the reader cable into the center hole and install the main unit by using two 3-16 screws.

8.1.3 Put the bezel into the main unit and push it until it clicks into place.



8.2. System Initialization



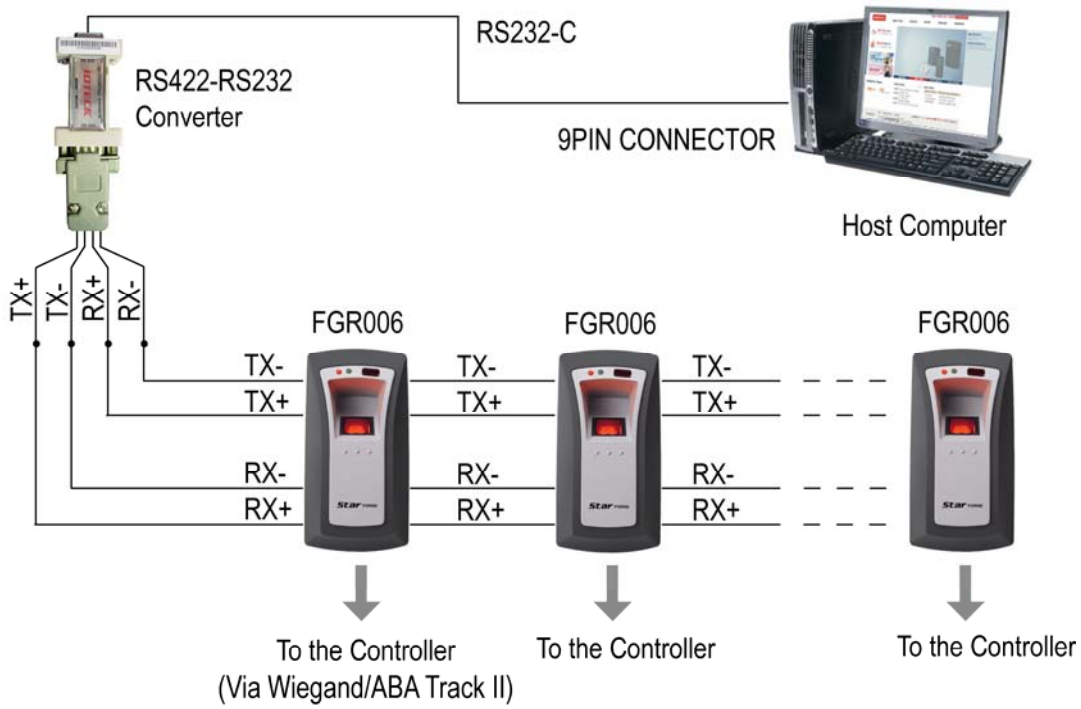
You can H/W initialize the system using the DIP switches on the back of the FGR006.

First, turn on the system power and set all the DIP switches to the DOWN position.
After initialization is completed, set the DIP to the original position.

* The DIP Switches are also used to set the address of the unit for RS422/RS485 communication.

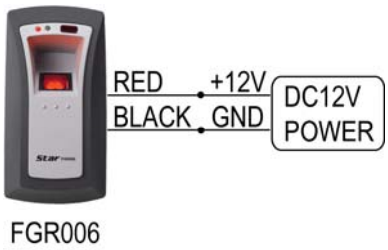
For information on the system indication during the system initialization process, refer to 11.Operating Status of the FGR006 of this manual.

8.3. Network Connection of FGR006



8.4. Wiring

8.4.1 Power

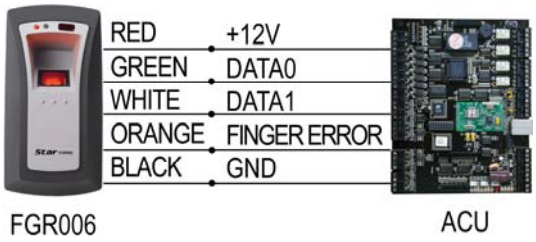


- Connect +12V(+) wire of Power to Red wire of FGR006
- Connect GND(-) wire of Power to Black wire of FGR006

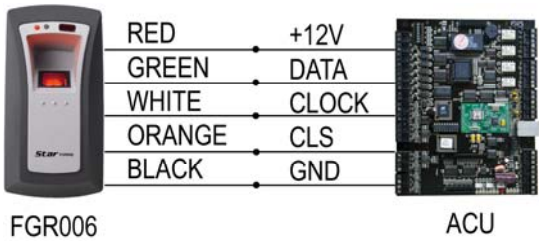
8.4.2 Input Connection

- The Green LED turns on if the LED Control Input wire is connected to the GND.
- A beep is generated if the Beeper Control Input wire is connected to the GND.

8.4.3 Output Connections



[26bit Wiegand Output]



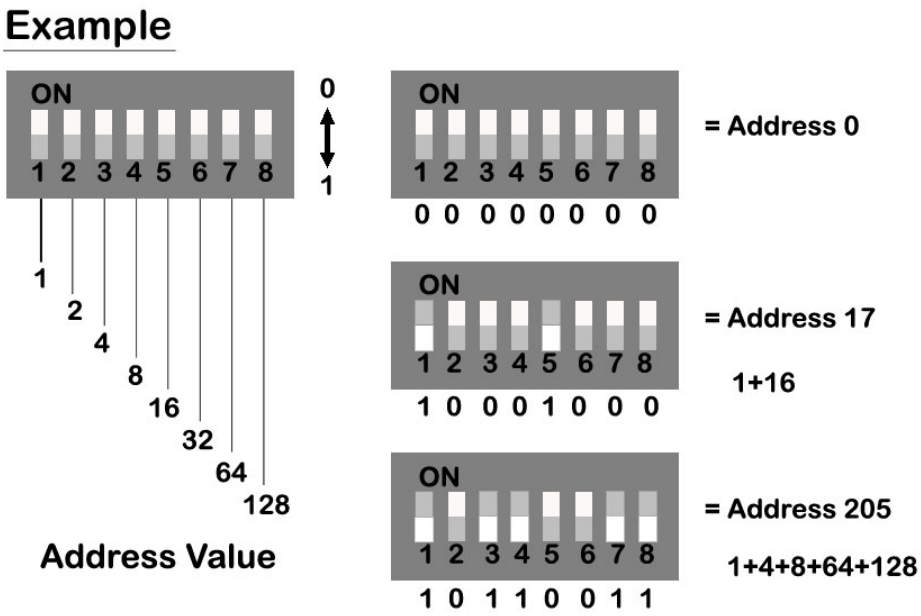
[ABA Track II Output]

8.4.4 External Reader Connection (Applicable to FGR006EX Only)

9. Communication

9.1. Address Setting for RS485 / RS422 Communication

If you want RS485 / RS422 communication to upload / download fingerprint templates, each FGR006 unit on the network must have a unique Communication ID. You can set the communication ID as described below. The communication ID can range 0-254



9.2. RS232 Communication Port Connection

For RS232 communication, you should use an external RS232 serial cable.

- Connect the RS232 serial cable between the stereo jack plug on the bottom of the FGR006 and the COM1 or COM2 port of the Host Computer
- Install and run the application software.

For more information, refer to 10.5 External RS232 Serial Jack (OPTION 2).

9.3. RS485 Communication Port Connection

FGR006(FGR006EX)		RS485/RS232 Converter
Gray wire and Brown wire	RS485-A	RS485+
Yellow wire and Blue wire	RS485-B	RS485-

An RS-485/RS-232 converter is required to connect serial communication RS485 between the FGR006 Main Unit and the Host Computer.
- Connect RS485 A, Gray and Brown wires of Main Unit to RS485+ of Converter.
- Connect RS485 B, Yellow and Blue wires of Main Unit to RS485- of Converter.
- Plug the RS232 9-pin connector of INC300 converter into COM1 or COM2 Port of Computer.
- Install and run the application software.

9.4. RS422 Communication Port Connection

FGR006(FGR006EX)		RS422/RS232 Converter
Yellow	RS422-Tx[-]	Rx-
Gray	RS422-Tx[+]	Rx+
Blue	RS422-Rx[-]	Tx-
Brown	RS422-Rx[+]	Tx+

An RS422/RS232 converter is required for RS422 communication between the FGR006 Main Unit and the Host Computer.
- Connect RS422 Tx[-],Yellow wire of FGR006 to Rx[-] port of Converter.
- Connect RS422 Tx[+], Gray wire of FGR006 to Rx[+] port of Converter.
- Connect RS422 Rx[-], Blue wire of FGR006 to Tx[-] port of Converter.
- Connect RS422 Rx[+], Brown wire of FGR006 to Tx[+] port of Converter.
- Plug the RS232 9-pin connector of Converter into COM1 or COM2 Port of Host Computer.
- Install and run the application software.

10. Operation

10.1. Master Card Registration Mode

10.1.1 Master Card Registration

The card presented to the FGR006 for the first time after initialization becomes the master card. For information on the system indication during the master card registration process, refer to the 11.Operating Status of FGR006 of this manual.

※ NOTE: Fingerprint verification is not used for the Master Card.

10.1.2 Master Card Change

You can register the Master Card again after system initialization.

※ CAUTION : If you initialize the system, all user data will be deleted.

Alternatively, you can change the Master Card using the application software.

Using the application software keeps the user data unchanged.

Refer the software manual for detailed instructions on how to change the master card.

10.1.3 Master Card Function.

The Master Card is used to toggle the FGR006 between the Reader Mode and the Registration Mode.

※ *For example,*

If you present the master card in the Reader Mode, the FGR006 shifts to the Registration Mode.

If you present the master card in the Registration Mode, the FGR006 shifts to the Reader Mode.

10.2. Registration Mode

10.2.1 Registration Mode Function

In the Registration Mode, you can register new user cards or delete registered user cards.

If you present a registered user card, it will be removed from the FGR006. (4 beeps)

If you present an unregistered user card, it will be newly registered to the FGR006. (3 beeps)

10.2.2 User Card Registration.

✓ RF + FINGER MODE:

After presenting the user card you'd like to register, you should enter the desired fingerprint twice. Follow the steps below to register a new user card;

1) Present the proximity card to the FGR006.
2) Place the fingerprint on the fingerprint scanner while red light is illuminated from it
3) Lift the fingerprint up when the red light from the scanner turns off.
4) Place the fingerprint on the fingerprint scanner once again while the red light is illuminated again.
5) You can hear 3 beeps if the registration is successfully completed, or 2 beeps if the registration is not successful.
6) If you'd like to register more user cards, repeat the steps above.
7) If you'd like to finish registration, present the Master Card to return to the Reader Mode.

※ NOTE: If you use the FGR006EX, present the proximity card to the external reader. You can register new users using the application software as well.

✓ RF Only:

If you'd like to register a new user without use of fingerprint, don't place the fingerprint on the fingerprint scanner and wait until the red light from the scanner turns off automatically.

1) Just present the user card you'd like to register.
2) After the registration is successfully completed, you'll hear 3 beeps. If the registration is not successful, you'll hear only 2 beeps.
3) If you'd like to register more user cards, repeat the procedure above. Or, if you'd like to finish registration, present the Master Card to return to the Reader Mode.

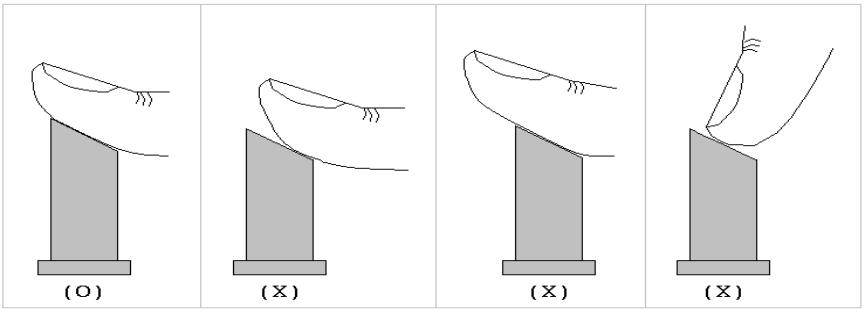


Figure: Correct placement of fingerprint

10.2.3 User Card Deletion

To delete registered user cards, proceed as follows;

1) Present to the FGR006 the Proximity Card you'd like to delete.
2) After the deletion is successfully completed, you'll hear 4 beeps. If the deletion is not successful, you'll hear 2 beeps.
3) If you'd like to delete more user cards, repeat the steps above.
4) To finish user deletion, present the Master Card to return to the Reader Mode.

※ NOTE: If you use the FGR006EX, you should present the proximity card to the external reader. You can delete existing users using the application software as well.

10.3. Reader Mode

10.3.1 Reader Mode Function.

In the Reader Mode, the FGR006 authorizes or denies users who attempt access by presenting their cards.

- If a user is authorized, the FGR006 transmits the card number to the controller.
- If a user fails to be authorized, the FGR006 transmits the error signal to the controller.

For information on the system indication in the Reader Mode, refer to 11.Operating Status of the FGR006 of this manual.

10.3.2 Authorization

To gain access, present a registered proximity card to the FGR006. If you are using the FGR006EX, present the proximity card to the external reader.

- ✓ RF + FINGER MODE:
  1) Present a registered proximity card to the FGR006.
  2) If red light is illuminated from the fingerprint scanner, place the registered fingerprint on it.
  3) If the fingerprint is successfully authorized, the FGR006 will turn on the lens LED and make a beep for one second and transmit the card number to the controller.
  4) If the fingerprint is not successfully authorized, the FGR006 will make 2 beeps. If your FGR006 is set in the 26bit Wiegand Output mode, it will also generate a fingerprint error signal of low active pulse for 500ms.

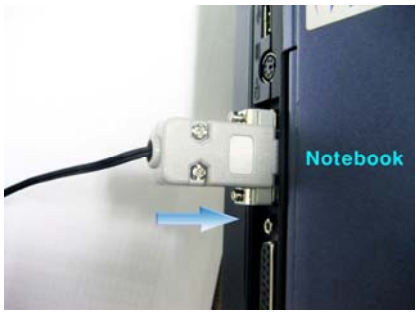
- ✓ RF-ONLY MODE:
  1) Present a card that is registered without use of fingerprint.
  2) You don't need to place your fingerprint on the fingerprint scanner.
  3) If the presented card is successfully authorized, the FGR006 will turn on the lens LED and make a beep for one second and transmit the card number to the controller.
  4) If the presented card is not successfully authorized, the FGR006 will make 2 beeps. If your FGR006 is set in the 26bit Wiegand Output mode, it will also generate a fingerprint error signal of low active pulse for 500ms.

10.4. Identification Mode (Option 1)

This optional feature is used in the Reader Mode. If the Identification Mode is applied, users can gain access by simply placing their fingerprint on the fingerprint scanner (without having to present the proximity card). The fingerprint scanner will be automatically activated when the user places the finger onto the fingerprint scanner.

- ✓ IDENTIFICATION MODE:
  1) Put your finger onto the fingerprint scanner.
  2) Red light is automatically illuminated from the fingerprint scanner. Keep the fingerprint still on the scanner.
  3) If the fingerprint is successfully authorized, the FGR006 will turn on the lens LED and make a beep for one second and transmit the card number to the controller.
  4) If the fingerprint is not successfully authorized, the FGR006 will make 2 beeps. If your FGR006 is set in the 26bit Wiegand Output mode, it will also generate a fingerprint error signal of low active pulse for 500ms.

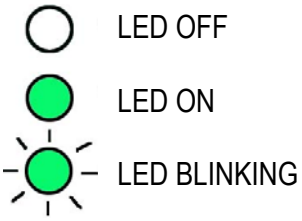
10.5. External RS232 Serial Jack (Option 2)

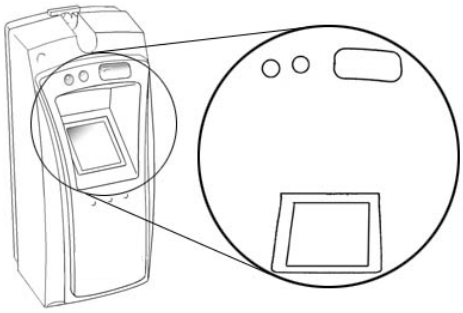
This cable is used to connect the FGR006 to the RS232 port of the Host Computer.	Lift off the Top Case of FGR006. Pull the Top Case down and take it out.
	
Insert the RS232 Serial Jack to the bottom of the FGR006	Connect the D-sub Connector to the RS232 port of the Host Computer.

This above instructions can be followed to connect the FGR006 directly to the Host Computer.

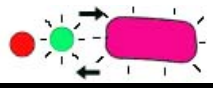
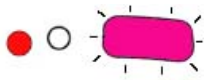
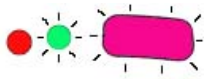
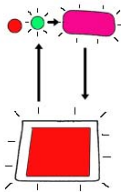
11. Operating Status of FGR006

Applicable to
FGR006: V 3.00 or above
FGR006EX: V 3.00 or above.

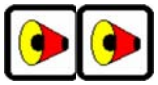
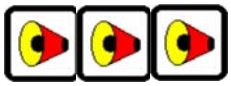
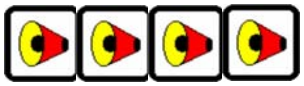




11.1. LED Indicators Status

LED	STATUS	FUNCTION
	Booting	The system is booting after power is supplied
	Register Master Card	After the system initialization is completed, the first card presented to the FGR006 becomes the Master Card.
	Registration Mode	You can register or delete user cards.
	Reader Mode	Users can access the door in this mode.
	Initialization	If system initialization is performed, all registered users are deleted.
	Initialization Completion	System initialization is completed.

11.2. Beeper Sound Status

BEEP	NUMBER OF BEEPS	STATUS
	1 beep (1 sec.)	Access Granted
	2 beeps	Error (Fingerprint or operation error)
	3 beeps	User Card Registered
	4 beeps	User Card Deleted

12. Output Format

12.1 26bit Wiegand Output Format

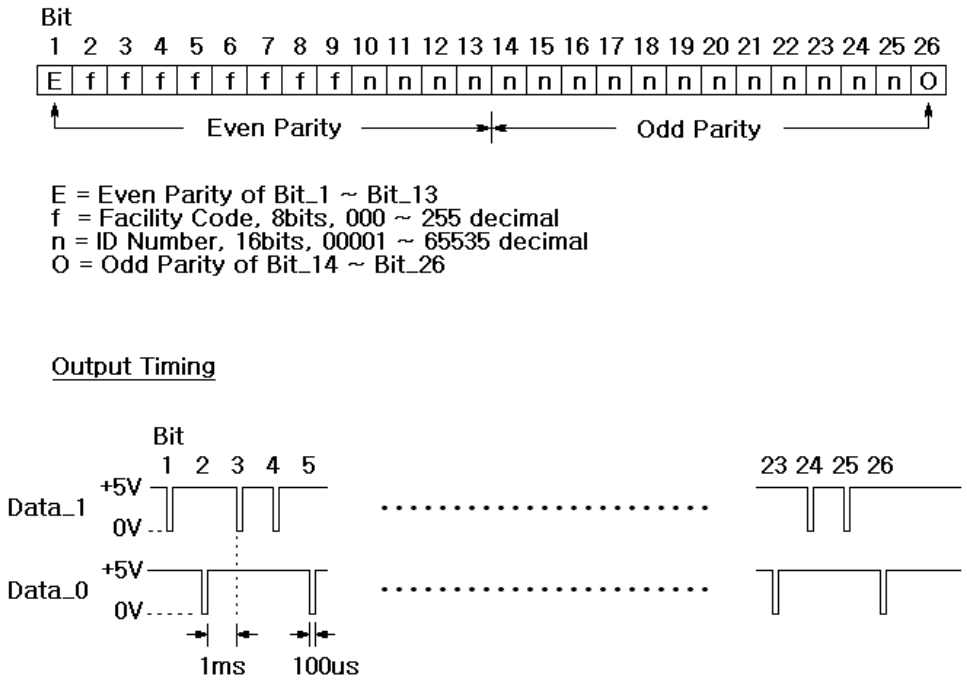

26bit Wiegand Output Format
Bit
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
E f f f f f f f f n n n n n n n n n n n n n n n n O
Even Parity
Odd Parity
E = Even Parity of Bit_1 ~ Bit_13
f = Facility Code, 8bits, 000 ~ 255 decimal
n = ID Number, 16bits, 00001 ~ 65535 decimal
O = Odd Parity of Bit_14 ~ Bit_26
Output Timing
Bit
1 2 3 4 5
23 24 25 26
Data_1
Data_0
+5V
0V
1ms
100us

Figure: 26bit Wiegand Output Format

12.2 Normal Output Mode (Default)

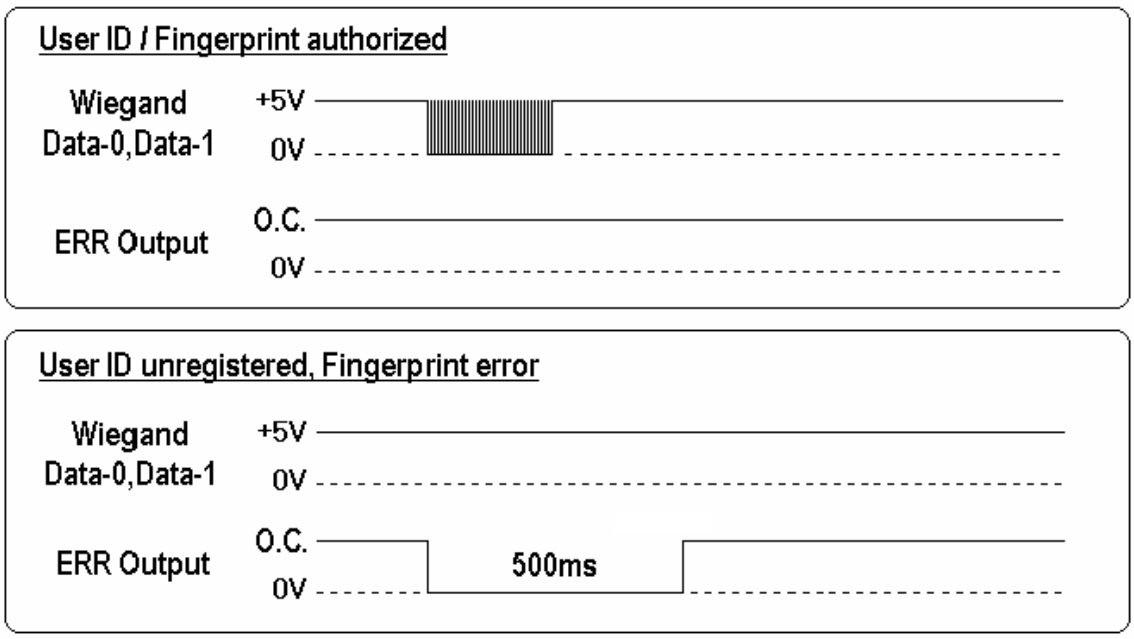


Figure: Normal Output Mode Timing

12.3 Extended Output Mode (Selectable using the software)

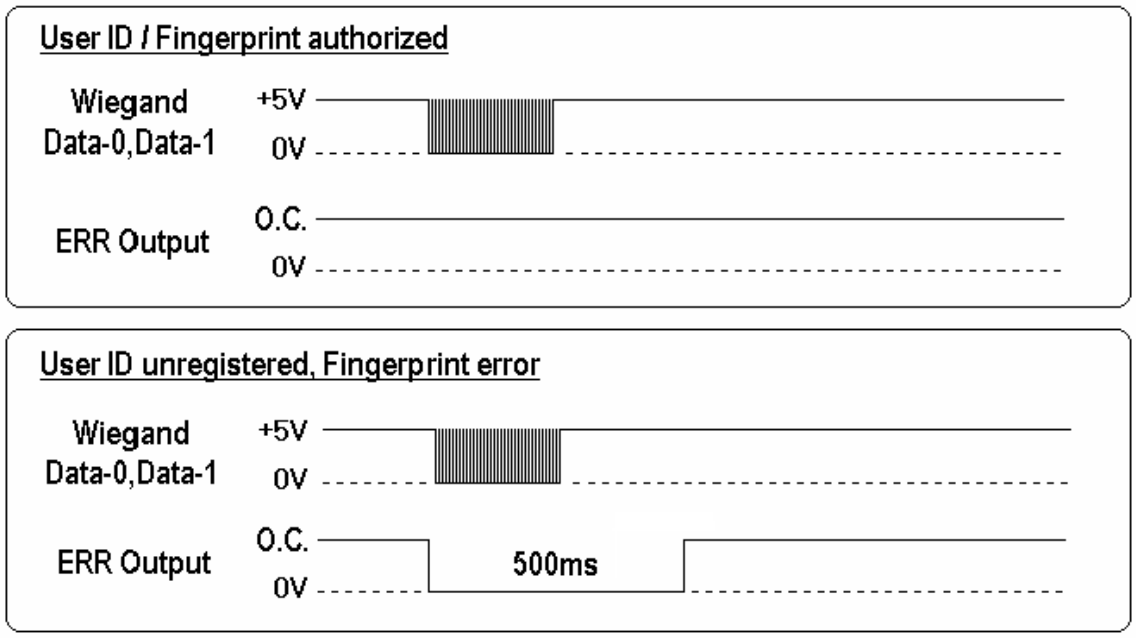


Figure: Extended Output Mode Timing

13. FCC Registration Information

FCC REQUIREMENTS PART 15

Caution: Any changes or modifications in construction of this device which are not expressly approved by the responsible for compliance could void the user's authority to operate the equipment.

NOTE: This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions;
1. This device may not cause harmful interface, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to this equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the radio or television off and on, the user is encouraged to try to correct interference by one or more of the following measures.

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on another circuit.
4. Consult the dealer or an experienced radio/TV technician for help.

14. Warranty Policy and Limitation of Liability

IDTECK warrants this product against defects in material and workmanship for 3 years from the date of purchase under normal customer use. This Warranty doesn't apply: 1) to any product which has been dismantled without authorization of IDTECK or/and has a damaged or detached QC label on its back side; 2) to any losses, defects, or damages caused by improper testing, operation, installation, maintenance, modification, alteration, or adjustment; 3) to any product with a damaged or faded serial number on it; or 4) to any losses, defects, or damages caused by lightning or other electrical discharge, natural disaster, misuse, accident or neglect.

This Limited Warranty is in lieu of all other warranties, obligations, or liabilities on the part of IDTECK, and IDTECK DISCLAIMS ANY AND ALL WARRANTY, WHETHER EXPRESS OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.IDTECK does not, and cannot, know who is present, what property is located, where this product will be used; it would be extremely difficult to determine the actual damages that may result from a failure of the product to perform as anticipated; and the low price of this product is based upon the nature of the product provided and the limited liability that IDTECK assumes. IDTECK IS NOT RESPONSIBLE FOR ANY PERSONAL INJURY, PROPERTY DAMAGE OR LOSS, DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR OTHER LOSS, AND IDTECK'S MAXIMUM LIABILITY SHALL NOT IN ANY CASE EXCEED THE PURCHASE PRICE OF THE PRODUCT.

To obtain repair or replacement under the terms of this warranty, visit IDTECK's Website (http://www.idteck.com) and place an online RMA request. After an RMA code is issued, return the product along with the authorization RMA code.

RMA REQUEST FORM

IDTECK accepts only on-line RMA requests on our Website (www.idteck.com). Please provide us with basic information in the below form so that we can understand your problems better. Send us back this form with your products after an RMA code is issued on our Website. This form is not compulsory.

RMA Authorization Code :	
1. Company Name	
2. Model Name	
3. Serial No.	
4. Original Invoice No.	
5. Distributor	
6. Purchasing Date	
7. RMA Request Date	

Please check your problems.

□ Card Reading	□ Power	□ Keypad
□ Communication	□ Relay	□ LCD
□ LED & Buzzer	□ Registration	
□ Others :		

IDTECK RMA Center >>

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Telephone: 82.2.2659.0055 (HQ) / 82.32.671.5642 (RMA Center)
Fax: 82.2.2659.0086 (HQ) / 82.32.671.5641 (RMA Center)
Website: www.idteck.com
e-Training Center: www.idtecktraining.com

The specifications contained in this manual are subject to change without notice at any time.

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